IN THE CLAIMS:

1. (previously presented) A wireless communication system comprising:

a plurality of base stations, each configured to transmit a PN encoded pilot signal at a different time offset than other base stations; and

at least one remote unit configured to perform a coarse search of a PN space and to use the results of the coarse search to select fine search parameters for use in a second search of selected portions of PN space;

wherein the course search comprises coarse search parameters selected by dividing a PN space into segments, selecting a number of noncoherent passes, and selecting an integration interval.

2. (previously presented) The wireless communication system of Claim 1 wherein during the coarse search, the number of non-coherent passes is reduced in comparison with the second search.

3. (previously presented) The wireless communication system of Claim 1 wherein during the coarse search, the integration interval is reduced in comparison with the fine search.

4. (original) The wireless communication system of Claim 1 wherein if, during the coarse search, sufficient energy is detected at a first offset corresponding to a first PN encoded pilot signal of a first base station, a first fine search parameter is selected to specify an expected range of PN offsets over which the first PN encoded pilot signal is likely to be received.

5. (previously presented) A remote unit in a wireless communication system comprising:

a search engine configured to receive search parameters, conduct a search for signals in the wireless communication system and to output search results;

a memory configured to receive and store the search results from the search engine and to output the search results; and

a controller configured to pass search parameters to the search engine, and to receive the search results from the memory;

wherein the search engine performs searches using the search parameters passed by the controller, the search parameters comprising:

a set of coarse search parameters used to search a PN space, wherein the coarse search parameters are selected by dividing a PN space into segments, selecting a number of noncoherent passes, and selecting an integration interval; and

a set of fine search parameters used to search portions of PN space most likely to contain a pilot signal, the likelihood of the space containing a pilot signal being determined by the controller after evaluating results of the coarse search.

6. (previously presented) The remote unit of Claim 5 wherein the number of non-coherent passes in the set of course search parameters is less than in the set of fine search parameters.

7. (previously presented) The remote unit of Claim 5 wherein the integration interval in the set of course search parameters is less than in the set of fine search parameters.

8. (previously presented) A method of initially acquiring a base station by a wireless remote unit, the method comprising:

selecting a set of coarse search parameters, wherein the coarse search parameters are selected by dividing a PN space into segments, selecting a number of noncoherent passes, and selecting an integration interval;

conducting a course search of an entire PN space for a pilot signal according to the coarse search parameters;

storing results of the coarse search in a memory;

examining the results of the coarse search stored in memory to select portions of the entire PN space upon which to conduct fine searching according to fine search parameters; and

conducting a fine search of the selected portions of the entire PN space according to the fine search parameters.

9. (previously presented) The method of Claim 8 wherein the number of non-coherent passes in the course search is less than in the fine search.

10. (previously presented) The method of Claim 8 wherein the integration interval in the course search is less than in the fine search.

11. (previously presented) The method of Claim 8 wherein if, during the course search, sufficient energy is detected at a first offset corresponding to a first PN encoded pilot signal of a first base station, a first fine search parameter is selected to specify an expected range of PN offsets over which the first PN encoded pilot signal is likely to be received.

12. (original) The method of Claim 11 further comprising storing all measured signal levels identified during the coarse search which exceed a threshold level and a corresponding PN offsets.

13. (previously presented) A remote unit in a wireless communication system configured to perform a search for a pilot signal, the remote unit comprising:

means for selecting a set of coarse search parameters, wherein the coarse search parameters are selected by dividing a PN space into segments, selecting a number of noncoherent passes, and selecting an integration interval;

means for conducting a course search of an entire PN space for a pilot signal according to the coarse search parameters;

means for storing results of the coarse search;

means for examining the stored results of the coarse search to select portions of the entire PN space upon which to conduct fine searching according to fine search parameters; and

means for conducting a fine search of the selected portions of the entire PN space according to the fine search parameters.

14. (original) A method of selecting search parameters used by a remote unit to search for a pilot signal, the method comprising:

selecting a set of coarse search parameters, the act of selecting comprising:

dividing a PN space into equal segments;

selecting a number of noncoherent passes to between one and eight; and

selecting an integration interval to be within a range of 0.1 to 0.06 milliseconds; and

evaluating the search results obtained during the coarse search to select a set of fine search parameters concentrated on portions of the PN space that have a higher probability of containing a viable pilot signal than other portions of the PN space.

15. (previously presented) A method of searching in a wireless communication system the method comprising:

transmitting a PN encoded pilot signal from a plurality of base stations, each base station configured to transmit said PN encoded pilot signal at a different time offset than other base stations;

performing a coarse search of a PN space by at least one remote unit, wherein the course search comprises coarse search parameters selected by dividing a PN space into segments, selecting a number of noncoherent passes, and selecting an integration interval.; and

selecting fine search parameters in response to results of the search, said fine search parameters for use in a second search of selected portions of PN space.

16. (previously presented) The method of Claim 15 wherein during the coarse search, the number of non-coherent passes is reduced in comparison with the second search.

17. (previously presented) The method of Claim 15 wherein during the coarse search, the integration interval is reduced in comparison with the fine search.

18. (previously presented) The method of Claim 15 wherein if, during the coarse search, sufficient energy is detected at a first offset corresponding to a first PN encoded pilot signal of a first base station, a first fine search parameter is selected to specify an expected range of PN offsets over which the first PN encoded pilot signal is likely to be received.

19. (previously presented) A method of selecting search parameters used by a remote unit to search for a pilot signal, the method comprising:

selecting a set of coarse search parameters, the act of selecting comprising:

dividing a PN space into unequal segments;

selecting a number of noncoherent passes; and

selecting an integration interval; and

evaluating the search results obtained during the coarse search to select a set of fine search parameters concentrated on portions of the PN space that have a higher probability of containing a viable pilot signal than other portions of the PN space.

20. (previously presented) The remote unit of Claim 5, wherein the segments are equal.

21. (previously presented) The remote unit of Claim 5, wherein the segments are unequal.